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121	tgggccttat	atcagtatca	cattgactat	aaccactga	tggaagccag	aagactccgt
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301	aatggagagg	atgtgaggat	aacgatcact	ttaacaaatg	aacttccacc	tacatcacca
361	acttgtttgc	agttctataa	tattattttc	aggaggcttt	tgaaaatcat	gaatttgcaa
421	caaattggac	gaaattatta	taacccaa	gacccaattg	atattccaag	tcacagggtg
481	gtgatttggc	ctggcttcac	tacttccatc	cttcagtatg	aaaacagcat	catgctctgc
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601	tatcatcaga	cagaagaaca	taaatttcaa	gaacaagttt	ccaagaact	aataggttta
661	gttggtctta	ccaagtataa	caataagaca	tacagagtgg	atgatattga	ctgggaccag
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1141	aaaacatttg	attacaatcc	acaatttgca	gattgggtcca	aagaaacaag	aggtgcacca
1201	ttaattagtg	ttaagccact	agataactgg	ctgttgatct	atacgcaag	aaattatgaa
1261	gcagccaatt	cattgatata	aaatctat	aaagttacac	cagccatggg	catgcaa
1321	agaaaagcaa	taatgattga	agtggatgac	agaactgaag	cctacttaag	agtcttacag
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1861	ggccagctga	aaacactggt	gaactacgaa	gtgccacagt	ttttggattg	tctaaaatcc
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1981	agattttttg	ctcagtctgg	aggaagactt	cagaatccac	ttcctggaac	agttattgat
2041	gtagagggtta	ccagaccaga	atggtatgac	ttttttatcg	tgagccaggc	tgtgagaagt
2101	ggtagtgttt	ctccacaca	ttacaatgtc	atctatgaca	acagcggcct	gaagccagac
2161	cacatacagc	gcttgaccta	caagctgtgc	cacatctatt	acaactggcc	aggtgtcatt
2221	cgtgttcctg	ctccttgcca	gtacgccac	aagctggctt	ttcttgttgg	ccagagtatt
2281	cacagagagc	caaactgtgc	actgtcaa	cgcctttact	acctctaa	

Figure 1

Met Ile Phe Gly Val Asn Thr Arg Gln Asn Leu Asp His Val Lys Glu Ser Lys Thr Gly Ser Ser Gly Ile Ile Val Arg Leu Ser Thr 30

Asn His Phe Arg Leu Thr Ser Arg Pro Gln Trp Ala Leu Tyr Tyr Gln Tyr His Ile Asp Tyr Asn Pro Leu Met Glu Ala Arg Arg Leu Arg 60

Ser Ala Leu Leu Phe Gln His Glu Asp Leu Ile Gly Lys Cys His Ala Phe Asp Gly Thr Ile Leu Phe Leu Pro Lys Arg Leu Gln Gln 90

Lys Val Thr Glu Val Phe Ser Lys Thr Arg Asn Gly Glu Asp Val Arg Ile Thr Leu Thr Asn Glu Leu Pro Pro Thr Ser Pro 120

Thr Cys Leu Gln Phe Tyr Asn Ile Ile Phe Arg Arg Leu Leu Lys Ile Met Asn Leu Gln Gln Ile Gly Arg Asn Tyr Tyr Asn Pro Asn 150

Asp Pro Ile Asp Ile Pro Ser His Arg Leu Val Ile Trp Pro Gly Phe Thr Thr Ser Ile Leu Gln Tyr Glu Asn Ser Ile Met Leu Cys 180

Thr Asp Val Ser His Lys Val Leu Arg Ser Glu Thr Val Leu Asp Phe Met Phe Asn Phe Tyr His Gln Thr Glu His Lys Phe Gln 210

Glu Gln Val Ser Lys Glu Leu Ile Gly Leu Val Val Leu Thr Lys Tyr Asn Asn Lys Thr Tyr Arg Val Asp Asp Ile Asp Trp Asp Gln 240

Asn Pro Lys Ser Thr Phe Lys Lys Ala Asp Gly Ser Glu Val Ser Phe Leu Glu Tyr Tyr Arg Lys Lys Gln Tyr Asn Gln Glu Ile Thr Asp 270

Leu Lys Gln Pro Val Leu Val Ser Gln Pro Lys Arg Arg Gly Pro Gly Gly Thr Leu Pro Gly Pro Ala Met Leu Ile Pro Glu Leu 300

Cys Tyr Leu Thr Gly Leu Thr Asp Lys Met Arg Asn Asp Phe Asn Val Met Lys Asp Leu Ala Val His Thr Arg Leu Thr Pro Glu Gln 330

Arg Gln Arg Glu Val Gly Arg Leu Ile Asp Tyr Ile His Lys Asn Asp Asn Val Gln Arg Glu Leu Arg Asp Trp Gly Leu Ser Phe Asp 360

Ser Asn Leu Leu Ser Phe Ser Gly Arg Ile Leu Gln Thr Glu Lys Ile His Gln Gly Gly Lys Thr Phe Asp Tyr Asn Pro Gln Phe Ala 390

Asp Trp Ser Lys Glu Thr Arg Gly Ala Pro Leu Ile Ser Val Lys Pro Leu Asp Asn Trp Leu Leu Ile Tyr Thr Arg Arg Asn Tyr Glu 420

Ala Ala Asn Ser Leu Ile Gln Asn Leu Phe Lys Val Thr Pro Ala Met Gly Met Gln Met Arg Lys Ala Ile Met Ile Glu Val Asp Asp 450

Arg Thr Glu Ala Tyr Leu Arg Val Leu Gln Gln Lys Val Thr Ala Asp Thr Gln Ile Val Val Cys Leu Leu Ser Ser Asn Arg Lys Asp 480

Lys Tyr Asp Ala Ile Lys Lys Tyr Leu Cys Thr Asp Cys Pro Thr Pro Ser Gln Cys Val Val Ala Arg Thr Leu Gly Lys Gln Gln Thr 510

Figure 1
Continued

Val Met Ala Ile Ala Thr Lys Ile Ala Leu Gln Met Asn Cys Lys Met Gly Gly Glu Leu Trp Arg Val Asp Ile Pro Leu Lys Leu Val	540
Met Ile Val Gly Ile Asp Cys Tyr His Asp Met Thr Ala Gly Arg Arg Ser Ile Ala Gly Phe Val Ala Ser Ile Asn Glu Gly Met Thr	570
Arg Trp Phe Ser Arg Cys Ile Phe Gln Asp Arg Gly Gln Glu Leu Val Asp Gly Leu Lys Val Cys Leu Gln Ala Ala Leu Arg Ala Trp	600
Asn Ser Cys Asn Glu Tyr Met Pro Ser Arg Ile Ile Val Tyr Arg Asp Gly Val Gly Asp Gly Gln Leu Lys Thr Leu Val Asn Tyr Glu	630
Val Pro Gln Phe Leu Asp Cys Leu Lys Ser Ile Gly Arg Gly Tyr Asn Pro Arg Leu Thr Val Ile Val Val Lys Lys Arg Val Asn Thr	660
Arg Phe Phe Ala Gln Ser Gly Gly Arg Leu Gln Asn Pro Leu Pro Gly Thr Val Ile Asp Val Glu Val Thr Arg Pro Glu Trp Tyr Asp	690
Phe Phe Ile Val Ser Gln Ala Val Arg Ser Gly Ser Val Ser Pro Thr His Tyr Asn Val Ile Tyr Asp Asn Ser Gly Leu Lys Pro Asp	720
His Ile Gln Arg Leu Thr Tyr Lys Leu Cys His Ile Tyr Tyr Asn Trp Pro Gly Val Ile Arg Val Pro Ala Pro Cys Gln Tyr Ala His	750
Lys Leu Ala Phe Leu Val Gly Gln Ser Ile His Arg Glu Pro Asn Leu Ser Leu Ser Asn Arg Leu Tyr Tyr Leu	775

Figure 1
Continued

PIWI MADDQGRGRRRPLNEDDSSTSRGSGDGPVRKVFRGSSSGDPRADPRIEASRERRALEEAPR
 M F G R L 61
 HIWI M-----IF-----G-----VNTRQNLHDV--

 PIWI REGGPPERKPWGDQYDYLNTRPVELVSKKGTGVPVMLQTNFFRLKTKPEWRIVHYHVEFE
 K E SK G+ G+ V L TN FRL ++P+W + YH+++ 122
 HIWI -----K-----E--SKTGSSGIIIVRLSTNHFRLTSPQWALYQYHIDYN

 PIWI PSIENPRVRMGVLSNHNANLLGSGYLFDFGLQFLTTRKFEQEITVLSGKSKLDIEYKISIKFV
 P +E R+R +L H +L+G + FDG LF ++ +Q++T + K++ + +I+I 183
 HIWI PLMEARRLSALLFQHEDLIGKCHAFDGTILFLPKRLQQKVTEVFSKTRNGEDVRITITLT

 PIWI GFISCAEPRFLQVLNLILRRSMKGLNLELVGRNLFDPRAKIEIREFKMELWPGYETSIRQH
 + P LQ N+I RR +K +NL+ +GRN ++P I+I ++ +WPG+ TSI Q+ 244
 HIWI NELPPTSPTCLQFYNIIFRLLKIMNLQQIGRNYNPNPDIPSHRLVIWPGFTTSILQY

 PIWI EKDILLGTEITHKVMRTETIYDIMRRCSHNPARRH--QDEVVRVNVLDLIVLTDYNNRTYRIN
 E I+L T+++HKV+R+ET+ D M H H Q++V. ++ L+VLT YNN+TYR++ 305
 HIWI ENSIMLCTDVSHKVLRSSETVLDFMFNFYHQTEEHKFQEQVSKELIGLVLTLYNNKTYRVD

 PIWI DVDFGQTPKSTF-SCKGRDISFVEYYLTKNIRIRDHNQPLLISK-NRDKALKTNASELVV
 D+D+ Q PKSTF G ++SF+EYY +YN I D QP+L+S+ R + + 366
 HIWI DIDWDQNPKSTFKKADGSEVSFLEYRKYNQNEITDLKQPVLVSQPKRRRGPGGTLPGPAM

 PIWI LIPELCRVGTGLNAEMRSNFQLMRAMSSYTRMNPQR---TDRLRAFNRHLQNTPESVKVLRL
 LIPELC +TGL +MR++F +M+ ++ +TR+ P+QR RL + H+ N LR 427
 HIWI LIPELCYLTGLTDKMRNDFNVMKDLAVHTRLTPEQRQREVGRLIDYIHKNDNVQ---RELRL

 PIWI DWNMELDKNVTEVQGRIIGQQNIVFHNGKVPAGEN---ADWQRHFRDQRLMTTPSDGLDRW
 DW + D N+ GRI+ + I H G N ADW + R +++ LD W 488
 HIWI DWGLSFDSNLLSFSGRILQTEKI--HQGGKTFDYNPQFADWSKETRGAPLISVKP--LDNW

 PIWI AVIAPQRNSHELRTLLDSLRYAASGMGLRIRSPQEFIIYDDRTGTYVRAMDDCVRSDPKLI
 +I +RN +L+ +L++ MG+++R I DDRT Y+R + V +D++++ 549
 HIWI LLIYTRRNYEAANSIQLNLFKVTPAMGMQMRK-AIMIEVDDRTEAYLRLVQLQKVTTADTQIV

 PIWI LCLVPNDNAERYSSIKKRGYVDRAVPTQVVTLKTTKPKPYLSMSIATKIAIQLNCKLGYTPW
 CL+ ++ ++Y +IKK D P+Q V +T K ++M+IATKIA+Q+NCK+G W 610
 HIWI VCLLSSNRKDKYDAIKKYLCTDCPTSPQCQVARTLGKQQTVMAIATKIALQMCKMGGELW

 PIWI MIELPLSGLMTIGFDIAKSTRDRKRAYGALIASMDLQQNSTYFSTVTECSAFDVLANTLWP
 +++PL +M +G D +R+ +AS++ + + +FS L+ L 671
 HIWI RVDIPLKLVMIVGIDCYHDMTAGRRSIAGFVASIN-EGMTRWFSRCIFQDRGQELVDGLKV

 PIWI MIAKALRQYQHEHRKLPSRIVFYRDGVSSGSLKQLFEFEVKDIIIEKLKTEYARVQLSPPQL
 + ALR + + +PSRI+ YRDGV G LK L +EV ++ LK+ P+L 732
 HIWI CLQAALRAWNSCNEYMPSRIIVYRDGVGDGQLKTLVNYEVPQFLDCLKSIGRGYN---PRL

 PIWI AYIVVTRSMNTRFFLNG----QNPPPGTIVDDVITLPERYDFYLVSSQQVRQGTVSPTSYNV
 IVV + +NTRFF QNP PGT++D +T PE YDF++VSQ VR G+VSPT YNV 793
 HIWI TVIVVKKRVNTRFFAQSGGRLQNLPGTVIDVEVTRPEWYDFFIVSQAVRSGSVSPHYNV

 PIWI LYSSMGLSPEKMQKLTYSKCHLYYNWSGTTRVPAVCQYAKKLATLVGTNLHSIPQNALEK
 +Y + GL P+ +Q+LTYK+CH+YYNW G RVPA CQYA KLA LVG ++H P +L 854
 HIWI IYDNSGLKPDHIQRLTYKLCYIYNNWPGVIRVPAPCQYAHKLAFLVGQSIHREPNSLSN

 PIWI KFYLL
 + YLL 859
 HIWI RLYLL

Figure 1
Continued

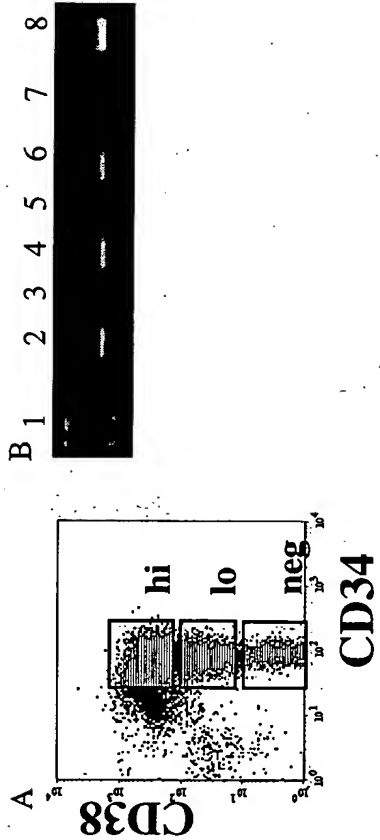
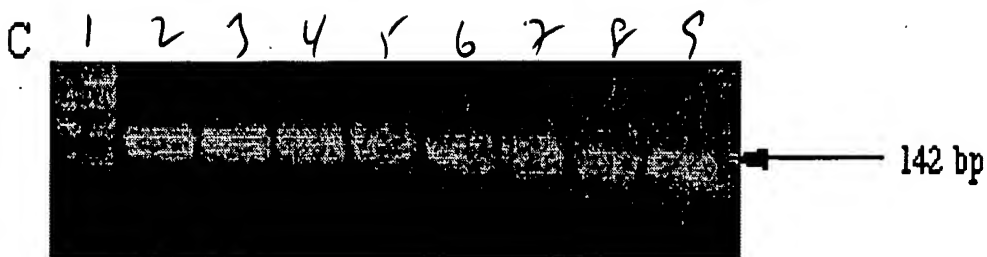
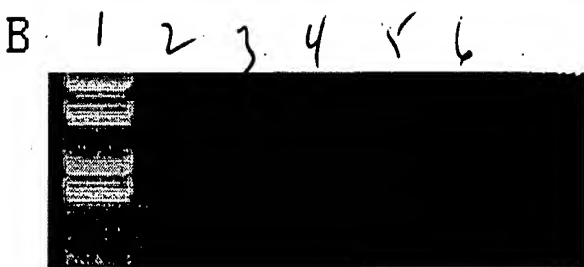
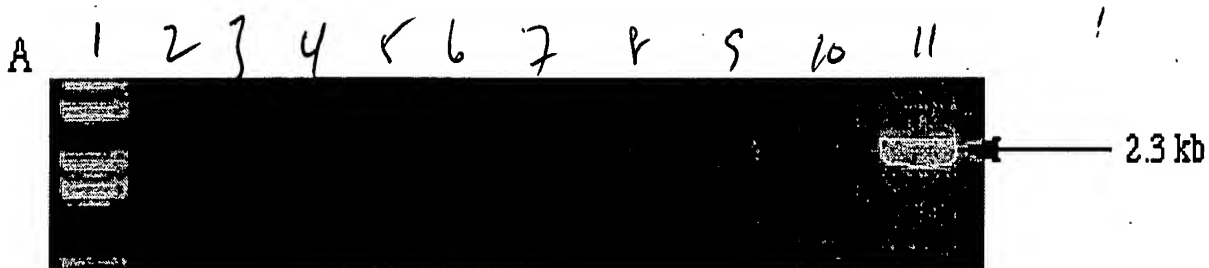


Figure 2



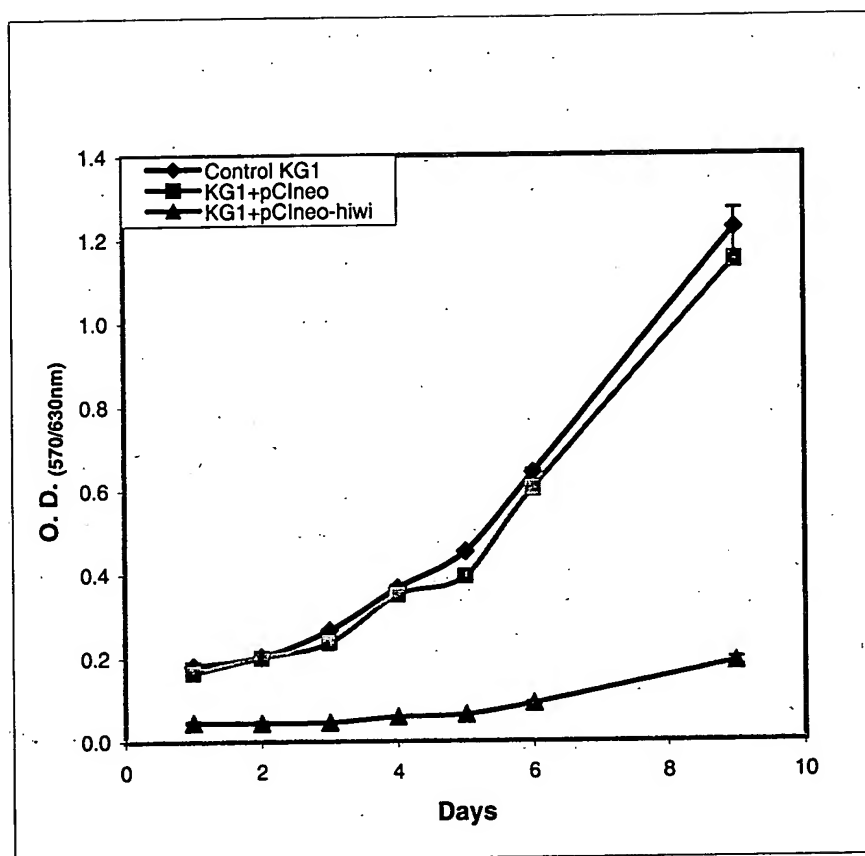


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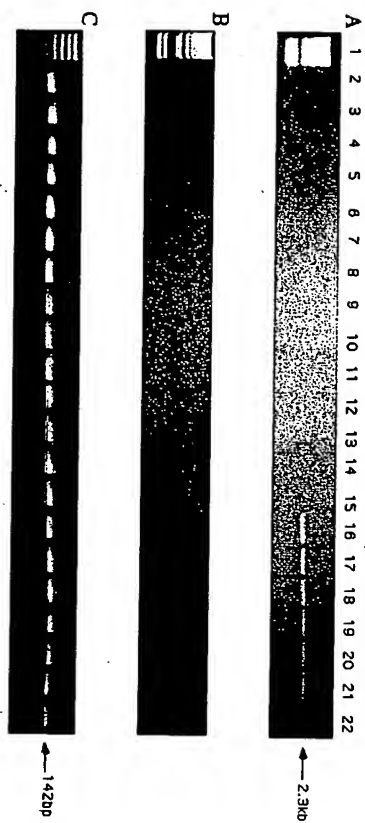
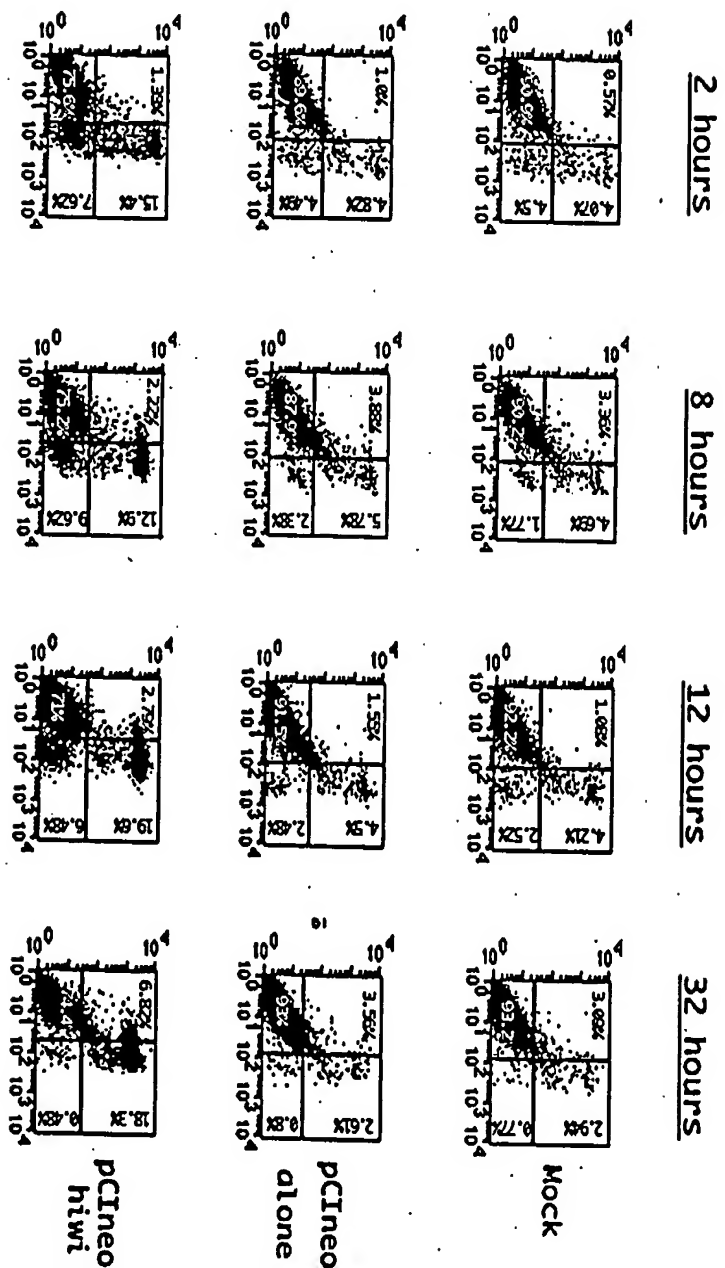


Figure 5

1004374.01.1002

Propidium Iodide



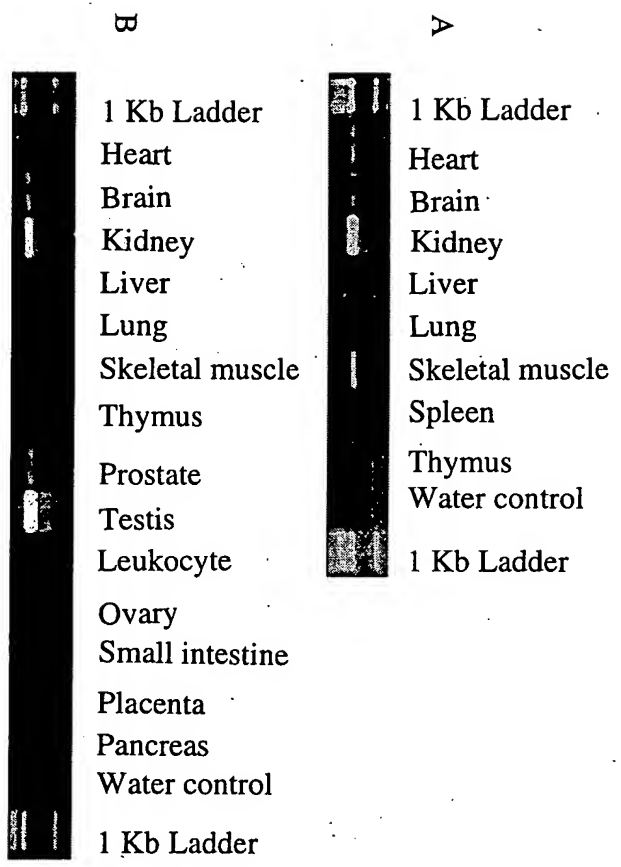
Annexin V

Figure 6

1004374.000000

1004374.01.1002

Figure 7



20070424EHOUE

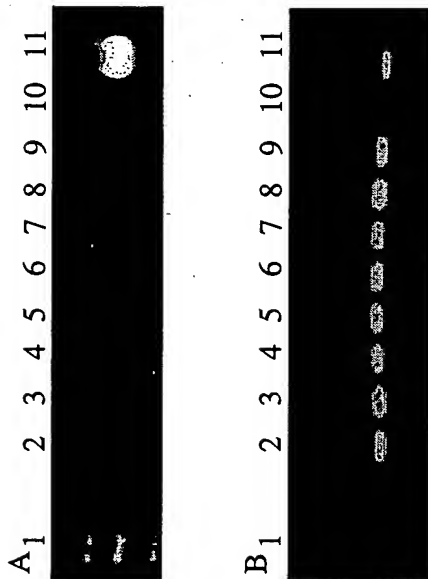


Figure 8

1004374.011002

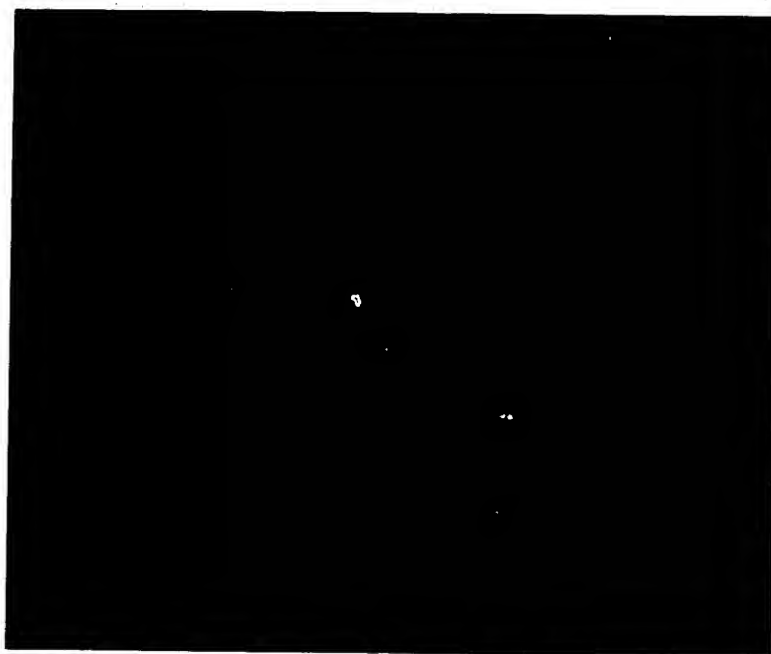
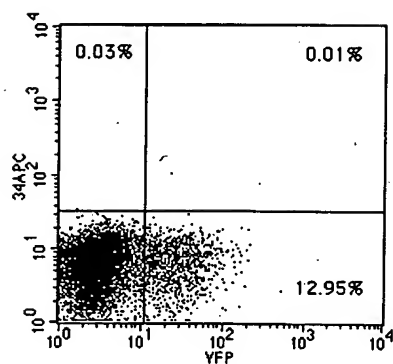


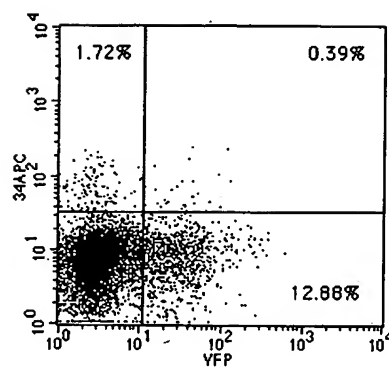
Figure 9

2004-10-14 14:00:00

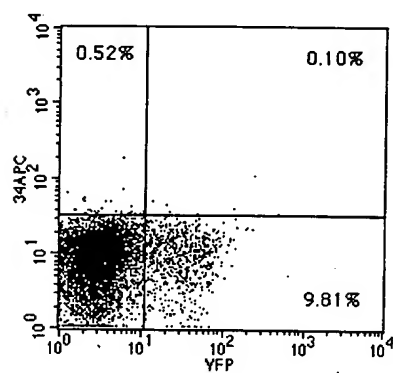
Hiwi Isotype Control



Hiwi CD34/YFP



Empty Vector Isotype Control



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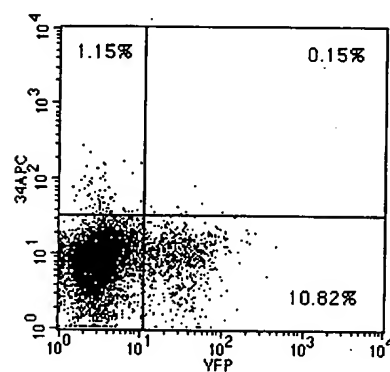


Figure 10